AMENDMENTS TO THE CLAIMS

Prior to examination on the merits, please amend the claims of the international application as follows.

1. (Original) A method for producing ceramic structures by applying an electric field between the electrodes of respectively one electrode pair, submerged in a suspension that is positioned in a gravitational field and contains ceramic particles in a distribution of particle sizes, such that on one of the electrodes of the respective electrode pair only the particle size fraction of the ceramic particles is deposited, which is smaller than a critical particle size that results from the balance between the forces of the electrical field and the forces of the gravitational field.

2. (Original) The method for producing ceramic structures as defined in claim 1, characterized in that the electrodes of the respective electrode pair are arranged parallel to each other and horizontal in the gravitational field of the earth and that the ceramic structure is deposited on the upper electrode.

3. (Original) The method for producing ceramic structures as defined in claim 1, characterized in that the gravitational field is generated with the aid of a rotating centrifuge.

4. (Original) The method for producing ceramic structures as defined in claim 3, characterized in that the electrodes of the respective electrode pair are arranged parallel to each other and

perpendicular to the direction of the gravitational field, generated by a rotating centrifuge, and that the ceramic structure is deposited on the inner electrode.

5. (Currently Amended) The method for producing ceramic structures as defined in ~~one of the~~ claims 1 ~~to 4~~, characterized in that the electrical field and the gravitational field can be varied independent of each other with respect to intensity and time.

6. (Currently Amended) The method for producing ceramic structures as defined in ~~one of the~~ claims 1 ~~to 5~~, characterized smaller values for the distribution of particle sizes in the ceramic structure than the distribution of particle sizes in the suspension.

7. (Currently Amended) The method for producing ceramic structures as defined in ~~one of the~~ claims 1 ~~to 6~~, characterized in that the ceramic particles comprise:

- structural ceramics such as Al_2O_3, ZrO_2, mullite, SiC, Si_3N_4 and/or
- functional ceramics such as $BaTiO_3$ or lead-zirconate-titanate (PZT) and/or
- bio-ceramics such as hydroxyl apatite ($Ca(OH)(PO_4)_3$) and/or
- mineral glass.

8. (Currently Amended) The method for producing ceramic structures as defined in ~~one of the~~ claims 1 ~~to 7~~, characterized in that the suspension contains at least two different types of ceramic particles.

9. (Currently Amended) The method for producing ceramic structures as defined in ~~one of the~~ claims 1 ~~to 8~~, characterized in that the ceramic particle sizes range from 5nm to 500μm, preferably from 10nm to 100μm, and especially preferred from 10nm to 10μm.

10. (Currently Amended) A ceramic structure produced in accordance with ~~one of the~~ claims 1 ~~to 9~~.

11. (Currently Amended) A ceramic gradient structure produced in accordance with ~~one of the~~ claims 5 ~~to 9~~.